

Docket No.:
065446.0115

PATENT APPLICATION
09/258,974

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1. (Three Times Amended) A radio frequency tag, comprising:

a threshold voltage generator coupled to a local power supply and operable to generate a threshold voltage signal of less than 500 millivolts on a threshold voltage generator output; and

a low propagation delay comparator having a first comparator input coupled to an antenna to accept a received signal and a second comparator input coupled to the threshold voltage generator output to receive the threshold voltage signal, the comparator powered by the local power supply and operable to demodulate the received signal based on a comparison of the received signal to the threshold voltage signal.

15. (Amended) A [The] radio frequency tag [of claim 1, wherein the threshold voltage signal is less than 50 millivolts], comprising:

a threshold voltage generator coupled to a local power supply and operable to generate a threshold voltage signal of less than 50 millivolts on a threshold voltage generator output; and

a comparator having a first comparator input coupled to an antenna to accept a received signal and a second comparator input coupled to the threshold voltage generator output to receive the threshold voltage signal, the comparator powered by the local power supply and operable to demodulate the received signal based on a comparison of the received signal to the threshold voltage signal.

20/ 21. (Twice Amended) A method for demodulating a signal at a radio frequency tag, comprising:

accepting a received signal;

generating a threshold voltage signal less than 500 millivolts;

comparing the received signal with the threshold voltage signal using a low propagation delay comparator; and

generating a digital output based on the comparison of the received signal to the threshold voltage signal.

Please cancel Claim 22 without prejudice or disclaimer.

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21/23. (Amended) A [The] method [of claim 21] for demodulating a signal at a radio frequency tag, [wherein the threshold voltage signal is less than 10 millivolts] comprising:

accepting a received signal;

generating a threshold voltage signal less than 10 millivolts;

comparing the received signal with the threshold voltage signal; and

generating a digital output based on the comparison of the received signal to the threshold voltage signal.

24/26. (Amended) A [The] radio frequency tag [of claim 1, wherein the threshold voltage signal is less than 300 millivolts], comprising:

a threshold voltage generator coupled to a local power supply and operable to generate a threshold voltage signal of less than 300 millivolts on a threshold voltage generator output; and

a comparator having a first comparator input coupled to an antenna to accept a received signal and a second comparator input coupled to the threshold voltage generator output to receive the threshold voltage signal, the comparator powered by the local power supply and operable to demodulate the received signal based on a comparison of the received signal to the threshold voltage signal.

25/27. (Amended) A [The] method [of claim 21] for demodulating a signal at a radio frequency tag, [wherein the threshold voltage signal is less than 300 millivolts] comprising:

accepting a received signal;

generating a threshold voltage signal less than 300 millivolts;

comparing the received signal with the threshold voltage signal; and

generating a digital output based on the comparison of the received signal to the threshold voltage signal.

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2428. (Amended) A [The] method [of claim 21] for demodulating a signal at a radio frequency tag, [wherein the threshold voltage signal is less than 50 millivolts] comprising:

accepting a received signal;

generating a threshold voltage signal less than 50 millivolts;

comparing the received signal with the threshold voltage signal; and

generating a digital output based on the comparison of the received signal to the threshold voltage signal.

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